

REMARKS

The Examiner's Office Action mailed October 28, 2004, has been received and its contents carefully reviewed. Applicants thank the Examiner for the courtesy afforded in conducting a personal interview on January 11, 2005, and for the candid and productive discussion. In response to the Office Action and personal interview, Applicants amended claim 12 to provide additional details regarding the data signal and control signals and the recording regions and to further distinguish the features of the present invention from the cited references. Additionally, Applicants added new claims 21-28 to provide additional detail regarding control signals and recording medium. Support for these amendments may be found throughout the specification and at least on page 7, lines 16-25, and on page 10, line 23 to page 11, line 22. As such, Applicants respectfully submit that no new matter was introduced by these amendments. As now recited, claims 12-21 are currently pending and are believed to be in condition for allowance. Applicant respectfully requests reconsideration of this application in light of the above amendments and the following remarks.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 12-20 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over the combination of Lokoff et al. in U.S. Patent No. 5,060,219 (hereafter "the '219 patent") in view of Timmermans et al. in U.S. Patent No. 5,930,210 (hereafter "the '210 patent"). Applicants respectfully submit that the claimed invention defines subject matter that is patentably distinct over the combination of references. In view of the amendments provided above and the comments below, Applicants respectfully request reconsideration and withdrawal of this rejection.

Claim 12 recites a disk-shaped recording medium comprising a primary recording region for recording a data signal based on a user instruction and a secondary recording region, where the secondary recording region is located on the side of an internal periphery of the primary recording region. The primary recording region has a track that wobbles at a first pitch along which the data signal is recorded. The secondary recording region has a track which wobbles at a second pitch different from the first pitch, and along which information pits are formed to record a signal representative of primary control information. The primary control information in the secondary recording region includes an invalid key information item for inhibiting reproduction of main data encrypted in the primary recording region by

using secondary control information illegally recorded in said primary recording region, said secondary control information comprising information for decrypting said main data encrypted in said primary recording region.

As recited in amended claim 12, primary control information refers to the control information in the secondary recording region. That is, invalid key information. Additionally, "secondary control information in said primary recording region" corresponds to the control information for decrypting the encrypted data in the primary recording region. That is, false control information. When the encrypted data and the key information for decrypting the encrypted data are illegally recorded in the primary recording region, the present invention prevents encrypted data in the primary recording region from being decrypted by illegally recorded key information. As recited in amended claim 12, invalid key information in the secondary recording region is information for invalidating decryption of the encrypted data by the illegally recorded key information in the primary recording region.

In contrast, the '219 reference discusses an audio recording carrier that is preconditioned with a control information pattern that includes identification of one or more types of information for which recording is permitted (see col. 1, lines 56-58). The '219 patent is generally directed to a recording system in which music data are prevented from being illegally recorded on a media designated as a computer data medium by specifying the application corresponding to the recording type. With regard to claim 12, paragraph 2 of the Office Action asserts that the '219 patent discloses a primary recording region having a track that wobbles at a first pitch and along which a user is able to record a data signal. However, the '219 patent fails to disclose a disk-shaped recording medium with a primary recording region having a first pitch along which a data signal may be recorded as recited in amended claim 12. Instead, the '219 patent discloses a servo track further comprising a portion 24b intended for information recording (see col. 6, lines 33-35). No mention of the pitch is evident in the '219 patent.

Likewise, there is no mention in the '219 patent of a secondary recording region wherein primary control information includes an invalid key information item for inhibiting reproduction of main data encrypted in the primary recording region by using secondary control information illegally recorded in the primary recording region, the secondary control information comprising information for decrypting the main data encrypted in the primary recording region as required by amended claim 12. While the Office Action points to Figures 3a and 3c as disclosing this feature, Figure 3a and Figure 3c merely discloses a view of a

record carrier for use in the recording system of the '219 patent (see col. 4, lines 11-13). The figures and associated description in the '219 patent do not disclose a secondary recording region having a track with a second pitch different from the first pitch as required by amended claim 12, but instead disclose, "The record carrier 2 has a servo track, for example in the form of a preformed groove or ridge. The servo track comprises a lead in track 24a provided with a preconditioning information structure comprising a pattern of pits 29 (see FIG. 3c). The servo track further comprises a portion 24b intended for information recording. For the purpose of recording the record carrier 2 is provided with a radiation sensitive recording layer 26, for example a magneto-optical layer, which is deposited on a transparent substrate 25 and which is covered with a protective coating 27. The layer 26 may also consist of a radiation-sensitive material other than a magneto-optical material, for example a material which when heated by means of radiation is subjected to a structural change from an amorphous structure to a crystalline structure or vice versa." Please see column 6, lines 29-44.

Additionally, the Office Action notes that the '219 patent does not expressly disclose that the control information in the secondary recording region includes an invalid key information item for inhibiting reproduction of main data encrypted in the primary recording region as recited in amended claim 12. Importantly, the '219 patent fails to disclose control information in the secondary recording region that includes, as data, an invalid key information item for inhibiting reproduction of main data encrypted in the primary recording region when the secondary encryption code is found in the primary recording region as recited in amended independent claim 12. This important feature is not evident in the '219 patent.

Also, the characterization in the Office Action of the control information of the '219 patent is not equivalent to an invalid key information item as recited in amended claim 12. To wit, the cited portion of the '219 patent (col. 1, lines 40-55 and col. 2, lines 50-58) merely states that, "It is an object of the invention to provide an information recording system as described above, which prohibits the large-scale evasion of copyrights. According to the invention this object is achieved by means of a recording system wherein the record carrier is preconditioned with a control-information pattern indicating for which type(s) of information such record carrier is intended the recording apparatus comprises means for reading control information represented by the control-information pattern, test means detecting the type of information received applied, and control means for controlling the recording process in such

a way that the received information is recorded only if it is detected to be of a type indicated by the control information being read from the record carrier.”

The remaining section cited from the ‘219 patent also fails to disclose this limitation, instead stating at column 2, lines 50-58, “An embodiment of the system is characterized in that the record carrier is of an erasable type, but the preconditioning control-information pattern is non erasable. Because the control information cannot be erased it is then virtually impossible to alter the record carrier utilization. If a record carrier with a preformed or prerecorded servo track is used it is advantageous to record the control-information pattern in such servo track. In that case the control information can be read by means of the apparatus already available for reading the information in the servo track.” The Office Action offers no additional explanation to equate the cited portion of the ‘219 patent to the claimed limitation.

Further, the ‘210 patent fails to cure the deficiencies of the ‘219 patent. The ‘210 patent appears to disclose a system that records the variations in the first physical parameter and the variations in the second physical parameter in the same recording region (see col. 4, lines 12-35). Additionally, the ‘210 patent fails to disclose a secondary recording region having primary control information that includes an invalid key information item for inhibiting reproduction of main data encrypted in the primary recording region by using secondary control information illegally recorded in the primary recording region, the secondary control information comprising information for encrypting the main data encrypted in the primary recording region. This important feature is not evident in the ‘210 patent. As such, the ‘210 patent fails to disclose this limitation as recited in amended claim 12 of the present invention.

Neither of the cited references teach or suggest the disk-shaped recording medium with a secondary recording region having primary control information that includes an invalid key information item for inhibiting reproduction of main data encrypted in the primary recording region by using secondary control information illegally recorded in the primary recording region, the secondary control information comprising information for encrypting the main data encrypted in the primary recording region as recited in amended claim 12. Additionally, the combination of cited references fails to teach or suggest a secondary recording region as recited in amended claim 12. Further, the combination of references fails to teach or suggest a motivation for one of ordinary skill in the art to utilize a secondary recording region having primary control information that includes an invalid key information item for inhibiting reproduction of main data encrypted in the primary recording

region by using secondary control information illegally recorded in the primary recording region, the secondary control information comprising information for encrypting the main data encrypted in the primary recording region. No suggestion or rationale, absent Applicant's teachings, for deviating from the encryption-decryption scheme is evident. For the reasons outlined above, the combination of the '219 and the '210 patent fails to establish a *prima facie* case of obviousness under 35 U.S.C. § 103. As such, Applicant respectfully submits that claim 12 is allowable over the cited references and requests that the rejection of claim 12 under 35 U.S.C. §103(a) be withdrawn.

Likewise, amended claims 13, 14, and 20 are dependent apparatus claims directed to the recording medium of independent claim 12 and add additional features to base claim 12. Therefore, Applicants respectfully request that the rejection of claims 13, 14, and 20 under 35 U.S.C. §103(a) also be withdrawn for the reasons set forth above with regard to independent claim 12.

Amended claim 15 recites a reproducing apparatus for the reproduction of main data recorded in the primary recording region of the recording medium of claim 12, where the reproducing apparatus includes a pickup for reading a signal from the recording medium under rotation. The apparatus also includes means for shifting the pickup and means for distinguishing if a reproduction location of the recording medium is the track which wobbles at the first pitch or the track that wobbles at the second pitch, where the second pitch is different from the first pitch or does not wobble. Additionally, where the reproduction location is the primary recording region having the track which wobbles at the first pitch, and the main data encrypted in the primary recording region are being recorded, the pickup is shifted to the secondary recording region by the means for shifting the pickup. Therefore, the reproduction of the main data encrypted in the primary recording region is inhibited by the invalid key information item included in the control information in the secondary recording region.

Conversely, the '210 patent discusses an embodiment of a record carrier where tracks are divided into two groups, each having a different pitch. The tracks are scanned by a radiation beam and the presence of the variations in the track pitch are detected. Please see col. 5, lines 13-25. However, the '210 patent fails to disclose "... in a case where according to said means for distinguishing the reproduction location of said recording medium, the reproduction location is said primary recording region having said track which wobbles at said first pitch, and the main data encrypted in said primary recording region are being

recorded, said pickup is shifted to said secondary recording region by said means for shifting said pickup, and the reproduction of the main data encrypted in said primary recording region by using secondary control information illegally recorded in said primary recording region is inhibited by the invalid key information item included in said primary control information in said secondary recording region,” as required by claim 15.

The Examiner asserts that the combination of the ‘210 patent and the ‘219 patent discloses all the limitations of claim 15, and refers to column 5, line 53 to column 6, lines 1-56 of the ‘210 patent as support. However, this cited section of the ‘210 patent merely discusses a tracking error signal to maintain the beam substantially in the center of the track and velocity control means for maintaining the scanning velocity substantially constant, and does not teach or suggest means for shifting the pickup to the secondary recording region nor inhibiting the reproduction of the main data encrypted in the primary recording region by the invalid key information item as required by claim 15.

Further, the ‘219 patent fails to cure the deficiency of the ‘210 patent. The cited portions of the ‘219 patent relates to a recording device that prevents the illegal recording of music data in a PC recording media by presetting the function for music data recording or computer data recording. The ‘219 patent neither teaches or suggests the above-mentioned limitations nor does suggest modifying any apparatus to include such a feature.

The combination of references fails to teach or suggest a motivation for one of ordinary skill in the art to utilize, in a case where according to said means for distinguishing the reproduction location of said recording medium, the reproduction location is the primary recording region having the track which wobbles at the first pitch, and the main data encrypted in the primary recording region are being recorded, the pickup is shifted to the secondary recording region by the means for shifting the pickup, and the reproduction of the main data encrypted in the primary recording region by using secondary control information illegally recorded in the primary recording region is inhibited by the invalid key information item included in the primary control information in the secondary recording region, as required by claim 15. No suggestion or rationale, absent Applicant’s teachings, for deviating from the encryption-decryption scheme is evident. For the reasons outlined above, the combination of the ‘219 and the ‘210 patent fails to establish a prima facie case of obviousness under 35 U.S.C. § 103. As such, Applicant respectfully submits that claim 15 is allowable over the cited references and requests that the rejection of claim 15 under 35 U.S.C. §103(a) be withdrawn.

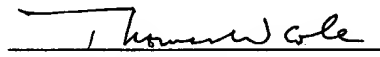
Likewise, claims 16-19 are dependent reproducing apparatus claims of independent claim 15 and add additional features to base claim 15. Therefore, Applicants respectfully request that the rejection of claims 16-19 under 35 U.S.C. §103(a) also be withdrawn for the reasons set forth above with regard to independent claim 15.

CONCLUSION

Therefore, in view of the foregoing Amendment to claims 12-15, and 18, and the above remarks, Applicants respectfully request that the rejections of record be reconsidered and be withdrawn by the Examiner. It is further requested that claims 12-21, thus be allowed and that the application be passed to issue.

If the Examiner believes a conference would be of benefit in expediting the prosecution of the present application, he is hereby invited to telephone counsel to arrange such a conference.

Respectfully submitted,


Thomas W. Cole
Reg. No. 28,290

NIXON PEABODY LLP
401 9th Street, NW, Suite 900
Washington, DC 20004-2128

Telephone: (202) 585-8000
Facsimile: (202) 585-8080

TWC/JAP